

Notice of Allowability

Application No.

09/891,389

Examiner

ABUL K. AZAD

Applicant(s)

KIMURA ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the communication filed on September 6, 2005.
2. ☒ The allowed claim(s) is/are 1,6,19,24,28-30,33,34,37,38,41,42,45-49 and 132-137.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

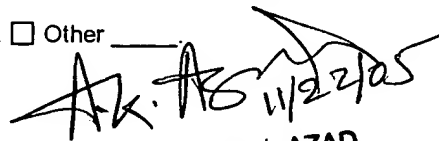
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


ABUL AZAD
PRIMARY EXAMINER

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Gary M. Jacobs on November 16, 2005.

The application has been amended as follows:

Please cancel Claims 7, 25, 26, 50-11, and 118-131 without prejudice to or disclaimer of the subject matter contained therein.

Please amend Claims 1, 19, 30, 34, 38, and 42 and add new Claims 132-137 as follows.

1. (Currently Amended) A speech synthesizing apparatus for converting a plurality of text data into synthetic speech and outputting it, comprising:

speech waveform generating means for generating synthetic speech waveforms of said plurality of text data;

overlap detecting means for detecting the overlap of the synthetic speech waveforms of the plurality of said text data;

display control means for controlling the displaying of a setting screen configured to set the importance of said plurality of text data in response to the output of said overlap detecting means;

volume determining means for determining the volumes of the synthetic speech waveforms of each of said plurality of text data on the basis of the importance of said plurality of text data set by the setting screen; and

speech output means for speech-synthesizing and outputting synthetic speech waveforms generated from said plurality of text data whose overlap has been detected at the volume determined by said volume determining means,

wherein when two synthetic speech waveforms overlap each other, said speech output means makes the volume of one synthetic speech waveform $a/(a+b)$ and makes the volume of the other synthetic speech waveform $b/(a+b)$, where a is a value of a parameter of the importance of the one synthetic speech waveform, and b is a value of a parameter of the importance of the other synthetic speech waveform.

2-5. (Canceled)

6. (Previously Presented) A speech synthesizing apparatus according to Claim 1, further comprising receiving means for receiving said plurality of text data and data on the importance of the plurality of text data from the outside of said apparatus.

7-18. (Cancelled)

19. (Currently Amended) A speech synthesizing method applied to a speech synthesizing apparatus for converting a plurality of text data into synthetic speech and outputting it, said method comprising:

a receiving step of receiving the plurality of text data;

a speech waveform generating step of generating synthetic speech waveforms from the received plurality of text data;

an overlap detecting step of detecting the overlap of the synthetic speech waveforms of the plurality of the text data;

a display control step of controlling displaying a setting screen configured to set the importance of the plurality of text data in response to the output of said overlap detecting step;

a volume determining step of determining the volumes of the synthetic speech waveforms of each of the plurality of text data on the basis of the importance of the plurality text data set in the setting screen; and

a speech outputting step of speech-synthesizing and outputting the synthetic speech waveforms generated from the plurality of the text data whose the overlap has been detected at the volume determined by said volume determining step,

wherein when two synthetic speech waveforms overlap each other, said speech outputting step makes the volume of one synthetic speech waveform $a/(a+b)$ and makes the volume of the other synthetic speech waveform $b/(a+b)$, where a is a value of a

parameter of the importance of the one speech waveform, and b is a value of a parameter of the importance of the other speech waveform.

20-23. (Canceled)

24. (Previously Presented) A speech synthesizing method according to Claim 19, further comprising the step of receiving data on the importance of the plurality of text data from the outside of the apparatus.

25 -27. (Canceled)

28. (Previously Presented) A storage medium storing therein a control program for making a computer perform the speech synthesizing method according to Claim 19.

29. (Previously Presented) A control program for making a computer perform the speech synthesizing method according to Claim 19.

30. (Currently Amended) A speech synthesizing apparatus for converting a plurality of text data into synthetic speech and outputting it, said apparatus comprising:
a speech synthesizer configured to generate synthetic speech waveforms of the plurality of text data in accordance with the importance of the plurality of text data and outputting the synthetic speech waveforms at one time comprising:

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display control means for controlling the displaying of a setting screen configured to set the importance of the plurality of text data;

volume determining means for determining the volumes of the synthetic speech waveforms of each of said plurality of text data on the basis of the importance of the plurality of text data set by the setting screen; and

speech output means for speech-synthesizing and outputting synthetic speech waveforms generated from said plurality of text data at the volume determined by said volume determining means,

wherein when two synthetic speech waveforms overlap each other, said speech output means makes the volume of one synthetic speech waveform $a/(a+b)$ and makes the volume of the other synthetic speech waveform $b/(a+b)$, where a is a value of a parameter of the importance of the one synthetic speech waveform, and b is a value of a parameter of the importance of the other synthetic speech waveform.

31-32. (Cancelled)

33. (Previously Presented) A speech synthesizing apparatus according to Claim 30, further comprising receiving means for receiving the plurality of text data and importance data indicative of the importance of the plurality of text data from the outside of the apparatus.

34. (Currently Amended) A speech synthesizing apparatus for converting a plurality of text data into synthetic speech and outputting it, said apparatus comprising:

a speech waveform generator configured to generate synthetic speech waveforms of the plurality of text data;

a display controller configured to control the displaying of a setting screen configured to set the importance of said plurality of text data;

a volume determining device configured to determine the volumes of the synthetic speech waveforms of each of said plurality of the text data on the basis of the importance of said plurality of text data set by the setting screen; and

a speech output device configured to perform speech-synthesizing synthesizing the synthetic speech waveforms generated from the plurality of text data at different volumes determined by said volume determining device and outputting the synthetic speech waveforms at one time,

wherein when two synthetic speech waveforms overlap each other, said speech output device makes the volume of one synthetic speech waveform $a/(a+b)$ and makes the volume of the other synthetic speech waveform $b/(a+b)$, where a is a value of a parameter of the importance of the one synthetic speech waveform, and b is a value of a parameter of the importance of the other synthetic speech waveform.

35-36. (Cancelled)

37. (Previously Presented) A speech synthesizing apparatus according to Claim 34, further comprising receiving means for receiving the plurality of text data and data indicative of the importance of the plurality of text data from the outside of the apparatus.

38. (Previously Presented) A speech synthesizing method applied to a speech synthesizing apparatus for converting a plurality of text data into synthetic speech and outputting it, said method comprising:

a speech outputting step of generating synthetic speech waveforms of the plurality of text data in accordance with the importance of the plurality of text data and outputting the synthetic speech waveforms at one time, comprising:

a speech waveform generating step of generating synthetic speech waveforms from the plurality of the text data;

a display control step of controlling the displaying of a setting screen configured to set the importance of the plurality of text data;

a volume determining step of determining the volumes of the synthetic speech waveforms of each of the plurality of text data on the basis of the importance of the plurality text data set by the setting screen; and

a speech outputting step of speech-synthesizing and outputting the synthetic speech waveforms generated from the plurality of the text data at the volume determined by said volume determining step at one time.

wherein when two synthetic speech waveforms overlap each other, said speech outputting step of speech-synthesizing and outputting makes the volume of one synthetic speech waveform $a/(a+b)$ and makes the volume of the other synthetic speech waveform $b/(a+b)$, where a is a value of a parameter of the importance of the one synthetic speech waveform, and b is a value of a parameter of the importance of the other synthetic speech waveform.

39-40. (Canceled)

41. (Previously Presented) A speech synthesizing method according to Claim 38, further comprising a receiving step of receiving the plurality of text data and importance data indicative of the importance of the plurality of text data from the outside of the apparatus.

42. (Currently Amended) A speech synthesizing method applied to a speech synthesizing apparatus for converting a plurality of text data into a synthetic speech and outputting it, said method comprising:

a speech waveform generating step of generating synthetic speech waveforms of said plurality of text data; and

a speech outputting step of speech-synthesizing the synthetic speech waveforms generated from the plurality of text data at different volumes and outputting the synthetic speech waveforms at one time comprising:

a display control step of controlling the displaying of a setting screen configured to set the importance of the plurality of text data;

a volume determining step of determining the volumes of the synthetic speech waveforms of each of the plurality of text data on the basis of the relative importance of the plurality of text data set by the setting screen; and

a step of speech-synthesizing and outputting the synthetic speech waveforms generated from the plurality of text data at the volume determined by said volume determining step at one time,

wherein when two synthetic speech waveforms overlap each other, said speech-synthesizing and outputting step makes the volume of one synthetic speech waveform $a/(a+b)$ and makes the volume of the other synthetic speech waveform $b/(a+b)$, where a is a value of a parameter of the importance of the one synthetic speech waveform, and b is a value of a parameter of the importance of the other synthetic speech waveform.

43. (Canceled)

44. (Canceled)

45. (Previously Presented) A speech synthesizing method according to Claim 42, further comprising a receiving step of receiving the plurality of text data and importance data indicative of the importance of the plurality of text data from the outside of the apparatus.

46. (Previously Presented) A storage medium storing therein a control program for making a computer perform the speech synthesizing method according to Claim 38 or Claim 41.

47. (Previously Presented) A control program for making a computer perform the speech synthesizing method according to Claim 38 or Claim 41.

48. (Previously Presented) A storage medium storing therein a control program for making a computer perform the speech synthesizing method according to Claim 42 or Claim 45.

49. (Previously Presented) A control program for making a computer perform a speech synthesizing method according to Claim 42 or Claim 45.

50-131. (Canceled)

132. (New) A speech synthesizing apparatus for converting a plurality of text data into synthetic speech and outputting it, comprising:

speech waveform generating means for generating synthetic speech waveforms of said plurality of text data;

overlap detecting means for detecting the overlap of the synthetic speech waveforms of the plurality of said text data;

display control means for controlling the displaying of a setting screen configured to set the importance of said plurality of text data in response to the output of said overlap detecting means;

volume determining means for determining the volumes of the synthetic speech waveforms of each of said plurality of text data on the basis of the importance of said plurality of text data set by the setting screen; and

speech output means for speech-synthesizing and outputting synthetic speech waveforms generated from said plurality of text data whose overlap has been detected at the volume determined by said volume determining means,

wherein when three or more synthetic speech waveforms overlap one another, said speech output means makes the volume of each output synthetic speech waveform a value obtained by dividing the value of an importance parameter of the importance of the synthetic speech waveform by the sum total of the values of importance parameters of all the synthetic speech waveforms s outputted in overlapping relation with one another.

133. (New) A speech synthesizing method applied to a speech synthesizing apparatus for converting a plurality of text data into synthetic speech and outputting it, said method comprising:

a receiving step of receiving the plurality of text data;

a speech waveform generating step of generating synthetic speech waveforms from the received plurality of text data;

an overlap detecting step of detecting the overlap of the synthetic speech waveforms of the plurality of the text data;

a display control step of controlling displaying a setting screen configured to set the importance of the plurality of text data in response to the output of said overlap detecting step;

a volume determining step of determining the volumes of the synthetic speech waveforms of each of the plurality of text data on the basis of the importance of the plurality text data set in the setting screen; and

a speech outputting step of speech-synthesizing and outputting the synthetic speech waveforms generated from the plurality of the text data whose the overlap has been detected at the volume determined by said volume determining step,

wherein when three or more synthetic speech waveforms overlap one another, said speech outputting step makes the volume of each output synthetic speech waveform a value obtained by dividing the value of an importance parameter of the importance of the synthetic speech waveform by the sum total of the values of importance parameters of all the synthetic speech waveforms s outputted in overlapping relation with one another.

134. (New) A speech synthesizing apparatus for converting a plurality of text data into synthetic speech and outputting it, said apparatus comprising:

a speech synthesizer configured to generate synthetic speech waveforms of the plurality of text data in accordance with the importance of the plurality of text data and outputting the synthetic speech waveforms at one time comprising:

display control means for controlling the displaying of a setting screen configured to set the importance of the plurality of text data;

volume determining means for determining the volumes of the synthetic speech waveforms of each of said plurality of text data on the basis of the importance of the plurality of text data set by the setting screen; and

speech output means for speech-synthesizing and outputting synthetic speech waveforms generated from said plurality of text data at the volume determined by said volume determining means,

wherein when three or more synthetic speech waveforms overlap one another, said speech output means makes the volume of each output synthetic speech waveform a value obtained by dividing the value of an importance parameter of the importance of the synthetic speech waveform by the sum total of the values of importance parameters of all the synthetic speech waveforms s outputted in overlapping relation with one another.

135. (New) A speech synthesizing apparatus for converting a plurality of text data into synthetic speech and outputting it, said apparatus comprising:

a speech waveform generator configured to generate synthetic speech waveforms of the plurality of text data;

a display controller configured to control the displaying of a setting screen configured to set the importance of said plurality of text data;

a volume determining device configured to determine the volumes of the synthetic speech waveforms of each of said plurality of the text data on the basis of the importance of said plurality of text data set by the setting screen; and

a speech output device configured to perform speech-synthesizing synthesizing the synthetic speech waveforms generated from the plurality of text data at different volumes determined by said volume determining device and outputting the synthetic speech waveforms at one time,

wherein when three or more synthetic speech waveforms *s* overlap one another, said speech output device makes the volume of each output synthetic speech waveform a value obtained by dividing the value of an importance parameter of the importance of the synthetic speech waveform by the sum total of the values of importance parameters of all the synthetic speech waveforms *s* outputted in overlapping relation with one another.

136. (New) A speech synthesizing method applied to a speech synthesizing apparatus for converting a plurality of text data into synthetic speech and outputting it, said method comprising:

a speech outputting step of generating synthetic speech waveforms of the plurality of text data in accordance with the importance of the plurality of text data and outputting the synthetic speech waveforms at one time, comprising:

a speech waveform generating step of generating synthetic speech waveforms from the plurality of the text data;

a display control step of controlling the displaying of a setting screen configured to set the importance of the plurality of text data;

a volume determining step of determining the volumes of the synthetic speech waveforms of each of the plurality of text data on the basis of the importance of the plurality text data set by the setting screen; and

a speech outputting step of speech-synthesizing and outputting the synthetic speech waveforms generated from the plurality of the text data at the volume determined by said volume determining step at one time,

wherein when three or more synthetic speech waveforms overlap one another, said speech outputting step of speech-synthesizing and outputting means makes the volume of each output synthetic speech waveform a value obtained by dividing the value of an importance parameter of the importance of the synthetic speech waveform by the sum total of the values of importance parameters of all the synthetic speech waveforms s outputted in overlapping relation with one another.

137. (New) A speech synthesizing method applied to a speech synthesizing apparatus for converting a plurality of text data into a synthetic speech and outputting it, said method comprising:

a speech waveform generating step of generating synthetic speech waveforms of said plurality of text data; and

a speech outputting step of speech-synthesizing the synthetic speech waveforms generated from the plurality of text data at different volumes and outputting the synthetic speech waveforms at one time comprising:

a display control step of controlling the displaying of a setting screen configured to set the importance of the plurality of text data;

a volume determining step of determining the volumes of the synthetic speech waveforms of each of the plurality of text data on the basis of the relative importance of the plurality of text data set by the setting screen; and

a step of speech-synthesizing and outputting the synthetic speech waveforms generated from the plurality of text data at the volume determined by said volume determining step at one time,

wherein when three or more synthetic speech waveforms overlap one another, said speech-synthesizing and outputting step makes the volume of each output synthetic speech waveform a value obtained by dividing the value of an importance parameter of the importance of the synthetic speech waveform by the sum total of the values of importance parameters of all the synthetic speech waveforms s outputted in overlapping relation with one another.

Allowable Subject Matter

2. Claims 1, 6, 19, 24, 28-30, 33, 34, 37, 38, 41, 42, 45-49 and 132-136 are allowed over the prior art of record.

3. The following is an examiner's statement of reasons for allowance:

The applicant has argued at pages 30 and 31 of the remark section of the response, "At the outset, Applicants respectfully request that the Examiner cite a reference disclosing the facts of which he has taken Official Notice, in accordance with MPEP 2 144.03. This section of the MPEP states that "It would not be appropriate for the examiner to take official notice of facts without citing a prior art reference where the facts asserted to be well known are not capable of instant and unquestionable demonstration as being well-known". (Emphasis in the original.) Here, Applicants submit that the Examiner has not established that the recitation of making the volume of one speech waveform to be $a/(a + b)$ and making the volume of another speech waveform to be $b/(a + b)$, as recited in these claims, is instantly and unquestionably demonstrable to be prior art. In addition, Applicants submit that the Examiner has not established that the following claimed feature is instantly and unquestionably demonstrable to be prior art: making the volume of each output synthetic speech waveform a value obtained by dividing the value of an importance parameter of the importance of the synthetic speech waveform by the sum total of the values of importance parameters of all the synthetic speech waveforms outputted in overlapping relation with one another. Therefore, for this reason, Applicants insist that the Examiner cite a reference showing these claimed features".

The above arguments are deemed to be persuasive because the prior art of record fails to show or fairly suggest above limitations in combination with other limitations.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Contact Information

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Abul K. Azad** whose telephone number is **(571) 272-7599**. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Richemond Dorvil**, can be reached at **(571) 272-7602**.

Any response to this action should be mailed to:

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

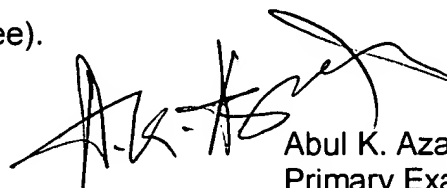
Or faxed to: **(571) 273-8300**.

Hand-delivered responses should be brought to **401 Dulany Street, Alexandria, VA-22314** (Customer Service Window).

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

November 22, 2005

A handwritten signature in black ink, appearing to read 'A.K. Azad', with a stylized flourish at the end.

Abul K. Azad
Primary Examiner
Art Unit 2654